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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/631,068  
Filing Date: July 31, 2003  
Appellant(s): CHEN ET AL.

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Rudolf O. Siegesmund, Esq.  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 04/07/2009 appealing from the Office action mailed 01/26/2009.

Art Unit: 3715

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

No amendment after final has been filed.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

Art Unit: 3715

**(8) Evidence Relied Upon**

2003/0027122	Stansvik	02-2003
5,525,060	Loebner	06-1996
2001.0019329	Kobayashi	11-2001
5,873,111	Edberg	02-1999
2003/0180699	Resor	09-2003
6,022,221	Boon	02-2000
7,367,808	Frank	06-2008
2002/0151366	Walker	10-2002

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 1, 4, 14 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stansvik US 2003/0027122, in view of Edberg 5,873,111, in view of Kobayashi 2001/0019329 and further in view of Loebner 5,525,060.**

**Claims 1 and 14:** Stansvik provide a teaching of a computer-implemented method for reviewing vocabulary comprising of: using a computer and a graphical user interface on a display connected to a computer and responsive to a user selecting a chapter from a plurality of chapters in a text book (see Stansvik paragraph 70), displaying a plurality of vocabulary word from a chapter (see Stansvik paragraph 45), displaying a vocabulary word in the question language and responsive to the user inputting an answer in the answer language, determining if the answer is a correct answer (see Stansvik FIG.5). Stansvik also provided a teaching if the answer is a correct answer is performed by determining whether the vocabulary of the word and the answer both match an entry in dictionary encoded (see Stansvik paragraph 57).

Art Unit: 3715

However, Stansvik is silent on what kind of encoding used in the dictionary. Edberg provide a teaching in the background of the invention that an electronic dictionary is better served when implemented using the Unicode encoding (see Edberg '111 col. 2:7-25 and col. 3:9-42). Therefore, one of ordinary skilled in the art would have been motivated to use Unicode as an encoding system of the word in the dictionary, because Unicode encoding would have allow for a better representation of different character/symbol that is unique of each particular language (see Edberg 2:7-25).

Stansvik discloses the claim invention except for the limitation of a user selecting a question language from English, Simplified Chinese, Traditional Chinese and Pin Yin and the limitation of a selecting the answer language from English, Simplified Chinese, Traditional Chinese and Pin Yin. However the Loebner reference provides a teaching a user selecting a question language from English, Simplified Chinese, Traditional Chinese and Pin Yin and the limitation of a selecting the answer language from English, Simplified Chinese, Traditional Chinese and Pin Yin (see col. 3:5-37). Therefore, it would have been obvious to include the feature of having English, Simplified Chinese, Traditional Chinese and Pin Yin in order to facilitate the teaching of Chinese language and the variation in its writing system (see Loebner col. 1:57-67). Stansvik fail to provide a teaching on responsive to the vocabulary word or the answer being in Simplified Chinese, translating the vocabulary word or the answer into Traditional Chinese by accessing a Simplified/Traditional Chinese database. However, Kobayashi provide a teaching on responsive to the vocabulary word or the answer, translating the vocabulary word or the answer into Simplified Chinese by accessing a Simplified/Traditional Chinese database (see Kobayashi Paragraph 91 and 46 and FIG. 3). Therefore, it would have been obvious for one ordinary skilled in the art to include the feature of translating the vocabulary word or the answer into Simplified Chinese by

Art Unit: 3715

accessing a Simplified/Traditional Chinese database, as taught by Kobayashi, in order to show the student the characterization of Chinese words using the traditional Chinese or simplified Chinese.

Specifically on claim 14. It also obvious to one of ordinary skill in the art at the time of the invention to automate, the selection of a question language from English, Simplified Chinese, Traditional Chinese and Pin Yin and the limitation of a selecting the answer language from English, Simplified Chinese, Traditional Chinese and Pin Yin using a graphical user interface, since it has been held that broadly providing an automatic mean to replace a manual activity which accomplished the same result involves only routine skill in the art. In *Re Venner* 120 USPQ 192.

**Claims 4 and 17:** Stansvik provided a teaching of displaying a statistic regarding the user's performance in answering plurality of question (see FIG. 9 and paragraph 37, 72).

**Claims 11 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stansvik US 2003/0027122, in view of Edberg 5,873,111, in view of Kobayashi 2001/0019329, in view of Loebner 5,525,060 and further in view of Walker 2002/0151366**

**Claims 11 and 24:** Stansvik fails to provide the teaching of changing the font size of the characters displayed on the graphical user interface. However the Walker reference provides a teaching on changing the font size of the characters displayed on the graphical user interface (see paragraph 69). Therefore, it would have been obvious to include the feature of changing the font displayed on the graphical user interface, as taught by Walker et al, in order to suite the user's preference (see paragraph 5).

Art Unit: 3715

**Claims 5-6 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stansvik US 2003/0027122, in view of Edberg 5,873,111, in view of Kobayashi 2001/0019329, in view of Loebner 5,525,060 and further in view Resor 2003/0180699**

**Claims 5-6 and 18-19:** Stansvik fails to provide a teaching on calculating the probability factors of vocabulary words, wherein the probability factors determine the probability (or frequency) that the vocabulary word appear in question (or will be asked in a question).

However, the Resor reference provides a teaching of the probability factors of vocabulary words, wherein the probability factors determine the probability (or frequency) that the certain problem appear in question (or will be asked in a question) [see paragraph 354 and 189]. Therefore, it would have been obvious at the time of the invention for one of ordinary skilled in the art to include the features of on calculating the probability factors of vocabulary words, wherein the probability factors determine the probability (or frequency) that the vocabulary word appear in question, as taught by Roser, in order to

**Claims 8-9 and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stansvik US 2003/0027122, in view of Edberg 5,873,111, in view of Kobayashi 2001/0019329, in view of Loebner 5,525,060, in view Resor 2003/0180699 and further in view of Boon 6,022,221**

**Claims 8 and 21:** The combination of Stansvik and Resor do not provide a teaching wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word. However, the Boon reference provides a teaching wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word

Art Unit: 3715

(see col. 5:35-45\_”... less frequent...” i.e. decreasing the probability factor of its appearance). Therefore, it would have been obvious to one of ordinary skilled in the art to include the feature of wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word, as taught by Boon, in order to allow a more effective memory retention learning method (see col. 3:5-15).

**Claims 9 and 22:** The combination of Stansvik and Resor do not provide a teaching wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word. However, the Boon reference provides a teaching of wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word (see col. 11:10-20 “... appear more frequently...” i.e. increasing the probability factor). Therefore, it would have been obvious to one of ordinary wherein responsive that the answer is correct, decrementing a probability factor for the vocabulary word, as taught by Boon, in order to allow a more effective memory retention learning method (see col. 3:5-15).

**Claims 10 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stansvik US 2003/0027122, in view of Edberg 5,873,111, in view of Kobayashi 2001/0019329, in view of Loebner 5,525,060, in view Resor 2003/0180699 and further in view of Frank US 7,367,808**

**Claims 10 and 23:** Stansvik fails to provide a teaching where is responsive to a determination that all vocabulary words in a chapter have a probability of one, indicating that the chapter is completed. However, Frank provides a teaching where a certain cut-off score, indicates that the training is completed (see Frank col. 14:40-50). The examiner interprets the limitation of to a determination that all vocabulary words in a chapter have a probability of one as equivalent as the cut-off scores that used in the Frank reference. Therefore, it would have been obvious at the time of the invention for



Art Unit: 3715

one of ordinary skilled in the art to include the features of on if the response to a determination that the answer is correct, decrementing probability factor for the vocabulary word and if the response to a determination that the answer is incorrect, incrementing probability factor for the vocabulary word, as taught by Frank, into the combination of Stansvik and Kobayashi because it would enable the system to indication where the stop the training (Frank col. 14:50-55).

**(10) Response to Argument**

***With respect to appellant's argument on the rejection under 35 U.S.C 103(a) on claims 1, 4, 14 and 17 as rejected over Stansvik, Edberg, Kobayashi and Loebner.***

The appellant argues that the combination of Stansvik, Edberg, Kobayashi and Loebner references fail to provide the teaching for the limitation of "responsive to the user selecting ... a question language from English, Simplified Chinese, Traditional Chinese or Pin Yin and answer language from English, Simplified Chinese, Traditional Chinese or Pin Yin. The appellant argues that the limitation requires a user to select an answer language and a question language and that the combination of references failed to show teaching for this limitation. The examiner respectfully disagrees. The examiner would like point out that the Stansvik reference already provides a teaching where the user can select a question and answer language (see Stansvik paragraph 48-49 and FIG 5B). In this particular case, the figures and citation of the Stansvik reference shows where the user can select computer to display a question language in English and the answer language in Spanish (see Stansvik FIG 5B 82, 86, 90 "The House" as question language and FIG 5B item "La Casa" as the answer language) as well as the reverse scenario where the Spanish language is the question language and the English language is the answer language (see Stansvik FIG 5B 92, 94, 96 "La Casa"

Art Unit: 3715

as the question language and the "The House" as the answer language). The Stansvik reference fails to teach the limitation of "the language of the answer and question language is selected from Simplified Chinese, Traditional Chinese or Pin Yin". However, the Loebner reference provides the teaching that the Simplified Chinese, Traditional Chinese or Pin Yin are writing systems associated with the Chinese language and have been observed in the past (see Loebner col. 1:30-35). The Loebner reference also identify that it would have been necessary for a student trying to learn the Chinese language to learn all three different type of writing system (orthodox/traditional Chinese, simplified Chinese and pin yin) since all three different writing system are widely used in the Chinese language [see Loebner col. 1:45-2:5]. In practice, the combination of the Stansvik with Loebner will only change the type language and writing system that can be displayed in Stansvik's display device. Since the Stansvik reference already provide a teaching of providing foreign language lesson (see Stansvik paragraph 45 and 69), the combination of Stansvik and Loebner will only extend the amount of the language training that the Stansvik reference is capable of.

The appellant argues that the combination of Stansvik, Edberg, Kobayashi and Loebner references fail to provide the teaching of "... wherein a determination if the answer is a correct answer is performed by determining whether the vocabulary word and answer word match an entry in a Traditional Chinese/Pin Yin/ English dictionary in Unicode". The examiner respectfully disagrees. The Stansvik reference already provides a teaching a determination if the answer is a correct answer is performed by determining whether the vocabulary word and answer word match an entry in a dictionary (see paragraph 57). While it would have been inherent that some sort of encoding system would be needed to implement the electronic dictionary, as disclosed by Stansvik, the Stansvik reference do not explicitly disclose what type encoding system used in the reference. Additionally, the Stansvik reference also fails to teach where the

Art Unit: 3715

dictionary is a Traditional Chinese/Simplified Chinese/Pin Yin/English dictionary. The Edberg reference provides a teaching that the Unicode is the computing industry standard that allow consistent display of a language writing system (see Edberg col. 1:55-2:10) and the Kobayashi reference shows that how to encode the Chinese writing system using Unicode encoding (see Kobayashi paragraph 91 and 46 and FIG. 3). In short, the examiner argues that each of the reference in the combination will describe to one of ordinary skilled in the art where the modification should be implemented, what information should be included in the system modification and how those new information should be encoded in the Stansvik system. In this particular case, the base Stansvik reference provide a teaching of an electronic dictionary ready for improvement by adding an additional world language. The Loebner reference provides a teaching of what kind of information that can be added in the electronic dictionary of Stansvik, namely, the addition Chinese language with its unique writing system. Lastly, the Edberg and Kobayashi reference provide a teaching how the Chinese writing system can be encoded in an electronic/computer dictionary. The appellant is correct in the observation that if the reference are to be viewed individually then none of the reference on its own would provide the teaching of *"a determination if the answer is a correct answer is performed by determining whether the vocabulary word and answer word match an entry in a Traditional Chinese/Pin Yin/ English dictionary in Unicode"*. However, one cannot show non-obviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Lastly, the appellant also argues that the combination of the Stansvik reference with the Loebner reference would produce an inoperative device since the combination would no longer allow the tracking of a user's progress. The appellant argues that the

Art Unit: 3715

to make proposed combination one of ordinary skilled in the art would have to replace Stansvik's question and answer sequence with Loebner's teaching of displaying one language at a time. The appellant also argue that the user would no longer be required to answer the Stansvik question. The examiner respectfully disagrees. Firstly, the examiner never suggested that such modification be done. Secondly, the only modification suggested by the examiner is to add the language that would be available in the Stansvik system. As explained earlier the Stansvik reference already provide a teaching of a system that is able to ask vocabulary question in one language and enable to student to answer in another language (i.e.: Spanish-English question-answer system and English-Spanish question-answer system). The modification that one of ordinary skilled in the art would be required to do would be concentrated on the display system in order to enable the system to display different Chinese character/writing system and the addition of Chinese character information in Stansvik electronic dictionary. The modification to add other language lesson other than Spanish language lesson can be found in the Stansvik reference (see paragraph 69). Moreover, the Stansvik reference also teaches that the scoring and performance tracking system can also be used in monitoring various learning module and language learning module (see paragraph 71-72). Since, the modification to add another world language has already been expected by the Stansvik reference and the fact that the Stansvik scoring and performance tracking system can be used to track vocabulary progress of a language; the examiner argues that the combination of Stansvik and Loebner reference would not cause the Stansvik reference to be inoperable.

As such the examiner takes the position that the rejection on claims 1, 4, 14 and 17 under 35 U.S.C 103(a) as rejected over the combination of Stansvik, Edberg, Kobayashi and Loebner are warranted and should be maintained.

Art Unit: 3715

***With respect to appellant's argument on the rejection under 35 U.S.C 103(a) on claims 5, 6, 18 and 19 as rejected over Stansvik, Edberg, Kobayashi, Loebner and Roser.***

The appellant argues that the Roser reference fails to provide a teaching of "...  
*calculating a probability factor for the plurality of vocabulary words and wherein the  
probability factors determines a probability that the vocabulary will appear in a question*"

The appellant argues that the Resor reference fails to teach the teaching of vocabulary words. The appellant also argues that the Resor reference is only directed toward arithmetic teaching and not vocabulary/language teaching. The examiner respectfully disagrees. The examiner would like to note that both the Resor and Stansvik reference are references that present question to be displayed to the student. The Stansvik reference is silent on exact algorithm on how a particular is selected and displayed to the student. The Resor reference provides a teaching of selecting a question based on the relative probability that is associated to each problem (see Resor paragraph 354). The examiner also notes that the MPEP specifically allows the use of similar of known technique to improve similar devices (see MPEP 2143). Since, both the Resor and Stansvik reference are similar devices (i.e.: electronic device that select and present question to the user) the examiner takes the position that the inclusion of the Resor algorithm to the Stansvik device would the modification will provide an improvement in the base reference. In this particular case, the Resor reference teaches a prior art of method of selecting a particular question using a known technique, namely, the technique of using a probability factor to select which question to be displayed to the user. Thus, it would have been recognized by one of ordinary skill in the art that applying the known technique taught by Resor to the education system of Stansvik would have yielded predicable results and resulted in an improved system, namely, a system that would select a question that is appropriate to the capability of the student

Art Unit: 3715

(see Resor paragraph 355 and 356). One of ordinary skilled in the art would have been motivated to make the Stansvik and Resor combination since the Resor reference teaches that the probability based selection system is more efficient and less time consuming in selecting the appropriate problem for the user (see paragraph 356).

The appellant also argues that the combination of Stansvik, Edberg, Kobayashi, Loebner and Roser is not valid since the examiner has not shown legal motivation to combine. The examiner respectfully disagrees. The examiner's motivation of combining the Resor reference with the Stansvik reference is taken explicitly from the Resor reference, namely, to increase the efficiency of the problem selection algorithm (see Resor paragraph 356). The examiner also notes that the type of modification suggested the use of similar of known technique to improve similar devices, in the rejection and this appeal brief has been identified to be a proper rationale to support an obviousness type rejection [See MPEP 2143 – Exemplary Rationale (C)].

Therefore, the examiner takes the position that the rejection on claims 5, 6, 18 and 19 under 35 U.S.C 103(a) as rejected over the combination of Stansvik, Edberg, Kobayashi, Loebner and Resor are warranted and should be maintained.

***With respect to appellant's argument on the rejection under 35 U.S.C 103(a) on claims 8, 9, 21 and 22 as rejected over Stansvik, Edberg, Kobayashi, Loebner, Roser and Boon.***

The appellant argument is based on the same argument presented on claims 1 and 14. The examiner takes the position the rejection of claim 1 and 14 are warranted and should be maintained. Consequently, the same arguments applied on claims 1, 14 are also applicable and the rejection of claims 8, 9, 21 and 22 are also warranted and should be maintained.

Art Unit: 3715

***With respect to appellant's argument on the rejection under 35 U.S.C 103(a) on claims 10 and 23 as rejected over Stansvik, Edberg, Kobayashi, Loebner, Roser, Boon and Frank.***

The appellant argues that the combination of Stansvik, Edberg, Kobayashi, Loebner, Roser, Boon and Frank fails to provide a teaching for the limitation of "*wherein responsive to a determination that all the vocabulary words in a chapter have a probability factor equal to one indicating the chapter is complete.*" The examiner respectfully disagrees. As explained in the rejection above, examiner finding of obviousness is based upon the examiner's determination that what the appellant refer as "probability factor" and "probability factor equal to one" are analogous to the term "score" and "cut-off score" in the Frank reference. The examiner points to the appellant's specification that explains on the probability factor is calculated (see appellant's specification page 11 line 20 - page 12 line 5). The appellant's specification taught that the probability factors are increased or decreased based on the student's correct and incorrect answer question. Similarly, a score is increased or decreased when a student submit a correct or incorrect answer to a question. The appellant's specification also taught that when probability factor is equal to one to all the system will stop presenting additional question (see IFG 4 item 328 and page 13 line 15-23). Similarly, the Frank reference also taught of a "cutoff" score that when reached will stop the system from asking will stop presenting additional question (see Frank FIG 4B item 518 col. 7:55-65 and col. 14:40-55). Since, the term "probability factor" in the claim behaves in a similar manner with the "score" term in the Frank reference, the examiner consider these two terms to be analogous and identical to each other. As such, the examiner concludes that the "probability factor equal to one" to be analogous to the cut-off score that is used and suggested by the Frank reference. As such, the examiner takes the position that the combination of Stansvik, Edberg, Kobayashi, Loebner, Roser,

Art Unit: 3715

Boon and Frank f provide a teaching for the limitation of "*wherein responsive to a determination that all the vocabulary words in a chapter have a probability factor equal to one indicating the chapter is complete.*"

The appellant also argues that the combination of Stansvik, Edberg, Kobayashi, Loebner, Roser, Boon and Frank is not valid since the Frank reference constitutes a non-analogous art. The appellant argues that the Frank reference is not from the same field of endeavor from the claimed invention and the teaching of Frank is not particularly pertinent to the problem as specified by the appellant. The examiner respectfully disagrees. Firstly, both the appellant's and Frank reference resides in the same general area of electronic/computer testing. Both the appellant's claimed invention present question to the user and receives answer to the question from the user. The appellant also argues that the field of employee retention and Chinese/English vocabulary are completely distinct from each other. The examiner respectfully disagrees. Since, one can certainly point to at least one type of employment that may require an employee to possess Chinese/English communication skill (e.g.: a translator). In such particular case, the field of employee retention and vocabulary are certainly very related. Lastly, the examiner would like to point out that the teaching of the Frank reference is not used as an employee retention system in the rejection. The examiner has shown that the Frank reference is only used to as a teaching on how the score and cut score can be processed in an electronic learning system. As such, the examiner argues that the field of endeavor in this particular case is not the vocabulary testing suggested by the applicant; rather; the field of endeavor is the electronic testing and scoring. As such, the examiner takes the position that the Frank reference and appellant's claimed invention to be analogous art.



Art Unit: 3715

Therefore, the examiner takes the position that the rejection on claims 10 and 23 under 35 U.S.C 103(a) as rejected over the combination of Stansvik, Edberg, Kobayashi, Loebner, Resor and Frank are warranted and should be maintained.

***With respect to appellant's argument on the rejection under 35 U.S.C 103(a) on claims 11 and 24 as rejected over Stansvik, Edberg, Kobayashi, Loebner, Roser and Boon.***

The appellant argument is based on the same argument presented on claims 1 and 14. The examiner takes the position the rejection of claim 1 and 14 are warranted and should be maintained. Consequently, the same arguments applied on claims 1, 14 are also applicable and the rejection of claims 11 and 24 are also warranted and should be maintained.

**(11) Related Proceeding(s) Appendix**

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/R. J. U. /

Examiner, Art Unit 3715

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